

College & Career Awareness

Program Area(s): Information Technology
Lesson Plan Title: Big Data! What do they know about me? Data collection – Write a brief survey to share with other students on a topic of their choice, analyze the results and write up the findings.
Estimated Time: 45-60 minutes
Primary CTE Pathway(s) Explored: Information Technology Education; Web Development and Administration
Intended Learning Outcome(s): <ul style="list-style-type: none"> • Discuss how education, career exploration, planning for college career readiness, and current occupational information will assist individuals in making long-range plans. • Identify career and postsecondary education options through investigation of high school to college and career pathways. • Consider and explore nontraditional career opportunities. • Explain how academic content knowledge and technical skills are used in various careers.
College and Career Awareness Pathway Standard, Objective(s): Standard 7, Objective 3 Standard 7, Objective 3
Cross Curriculum Integration: Business and Marketing; Language Arts (writing) <ul style="list-style-type: none"> • Math – Create your own Survey: SP1 Understand that statistics can be used to gain information about a population; SP2 Use data from a random sample to draw inferences. • Technology: Recording and Editing Audio requires technology skills and software know-how. • Writing – Career Exploration: W2 Write informative texts.
Career Opportunities in the CTE Pathway(s): Market research analyst, Web developer, marketing manager, database administrator, statistician, political scientist, secondary school teacher, advertising manager, public relations specialist, city manager, survey researcher
Nontraditional Career Opportunities: Computer and information research scientist, database administrator
STEM Specific Career Opportunities: Web developer, database administrator, statistician
Methods (Approach to Teaching and Learning): <ul style="list-style-type: none"> • Direct Instruction and Demonstration • Problem-based or Project-Based Learning
Materials Needed:

- Computer
- Access to Google Forms
- Microsoft OneDrive (or other survey tool)

Vocabulary:

- analyze/analysis
- data
- generalize
- market research
- survey

Prior Knowledge Required by Students:

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Instructional Procedures:

Students will learn to write a short survey and then use an online survey tool such as Google Forms or Microsoft OneDrive Surveys to write the survey and collect data, which they will then briefly analyze. See “Teacher’s Information Document” for complete procedures including career resources, etc.

Additional Resources:

- Watch video: Big Data Meets Presidential Politics
<https://www.youtube.com/watch?v=6ZOfnFCMHTM>

Assessment(s):

- Elaboration (understandings or connections beyond objectives—written, oral or through demonstration or performance): writing effective survey questions.
- Critical thinking demonstration (written, oral, or through demonstration or performance): writing summary of what they learned from collecting their data.
 Develop a portfolio of artifacts documenting concepts learned. (Students will create a survey and collect and analyze data. Survey and responses can be used in student portfolio.